



## Overview

### Points To Remember About Gout

- Gout is a common condition that causes attacks of pain and swelling in your joints, especially your big toe.
- Gout is caused by uric acid crystals building up in your joints and kidneys.
- You can reduce your risk of gout attacks by limiting alcohol and foods high in a substance called purines.
- Your doctor can recommend medicines and treatments to reduce the pain of gout attacks and help you have fewer attacks.
- Proper treatment of gout can prevent permanent damage to your joints and kidneys.

Gout is a kind of arthritis that causes attacks of pain and stiffness in your joints, especially your big toe. Gout is caused by crystals of a substance called uric acid building up in your joints. It can also cause lumps under the skin and kidney stones.

For some people, gout progresses through several stages:

- Hyperuricemia, when you have elevated levels of uric acid in your blood, but no symptoms.
- Acute gout, when you have an attack of intense pain and swelling in your joints. Acute attacks often come on at night and can be triggered by stress, drugs, alcohol, or another illness. An acute attack usually clears up within three to 10 days, even without treatment.
- Interval or intercritical gout, which is the time between gout attacks when you don't have any symptoms.
- Chronic tophaceous gout, a late stage of gout when the condition may have permanently damaged your joints and kidneys. With proper treatment, most people do not reach this stage.

# Who Gets

Millions of people get gout. It is especially common in men between the ages of 40 and 50. Women rarely develop gout before menopause.

You are more likely to get it if you:

- Have a family history of gout.
- Have had an organ transplant.
- Are a man.
- Are an adult.
- Are overweight.
- Drink alcohol.
- Eat foods that are rich in purines, a substance that breaks down into uric acid.
- Are exposed to lead in your environment.

Some health problems can also increase your risk of getting gout, including:

- Renal insufficiency, a condition in which your kidneys don't eliminate enough waste.
- High blood pressure.
- Hypothyroidism, a condition in which your thyroid gland is underactive.
- A condition that cause your cells to turnover rapidly, such as psoriasis, hemolytic anemia, or some cancers.
- Kelley-Seegmiller syndrome or Lesch-Nyhan syndrome, two rare conditions in which your body either doesn't have the enzyme that regulates uric acid levels or doesn't have enough of that enzyme.

Some medications can increase your risk of getting gout, including:

- Diuretics, which help your body eliminate excess fluid.
- Salicylate-containing drugs, such as aspirin.
- Niacin, a vitamin.
- Cyclosporine, a medication used to treat some autoimmune diseases and people who have had organ transplants.
- Levodopa, a medication prescribed to treat Parkinson's disease.

# Symptoms

Gout causes pain in your joints, often in the big toe. Many people get their first attack of gout in one of their big toes, but it can also affect other joints in your feet, arms, and legs. In addition to pain, your joint may feel swollen, red, warm, and stiff.

Gout attacks often start suddenly at night. Intense pain and swelling may be bad enough to wake you up. Gout attacks are often triggered by stressful events, alcohol, drugs, or another

illness.

Usually, a gout attack will get better in three to 10 days, even without treatment. After that, you may not have another attack for months or even years. Over time, however, your attacks may last longer and happen more often.

## Causes

Gout is caused when a substance in your body called uric acid forms crystals in your joints. This causes pain, swelling, and other symptoms.

Uric acid comes from purines, which are found in your body's tissues and many foods. When purines break down, they become uric acid. Uric acid normally dissolves in your blood and passes out of your body in urine. When too much of it builds up in your blood, however, it can form the crystals in your joints that cause gout.

Things that can cause uric acid to build up in the blood include:

- Your body increasing the amount of uric acid it makes.
- Your kidneys not getting rid of enough uric acid.
- Eating too many foods high in purines, such as liver, dried beans and peas, and anchovies.

## Diagnosis

Gout can be difficult to diagnose because its symptoms are similar to several different conditions. Your doctor may test your blood to see if you have high levels of uric acid. They may also draw a sample of fluid from one of your painful joints to look for crystals of uric acid.

## Treatment

Proper treatment can reduce the pain from gout attacks, help prevent future attacks, and prevent damage to your joints.

Your doctor may recommend medications to treat your pain. These may include:

- Anti-inflammatory drugs (NSAIDs), which can reduce pain and swelling.
- Corticosteroids, such as prednisone, which are strong anti-inflammatory hormones.
- Colchicine, which works best when taken within the first 12 hours of a gout attack.
- Other medications to reduce symptoms or reduce the build-up of uric acid in your blood.

Your doctor may also recommend diet and lifestyle changes, such as losing weight, since being overweight puts you at a greater risk of gout attacks, and cutting back on alcohol and foods that

are high in purines.

## Living With

In addition to taking medications recommended by your doctor, you can make some changes to your diet to help you have fewer gout attacks. As always, talk with your doctor before making any changes to your diet or medications.

Your doctor may recommend that you lose weight, if you are overweight, or drink less alcohol. You can also avoid eating foods with lots of purines, since they can increase your uric acid levels. Foods that are high in purines include:

- Anchovies.
- Asparagus.
- Beef kidneys.
- Brains.
- Dried beans and peas.
- Game meats.
- Gravy.
- Herring.
- Liver.
- Mackerel.
- Mushrooms.
- Sardines.
- Scallops.
- Sweetbreads.

## Prevention

Your risk of getting gout is determined by a number of factors, including genetics, your age and sex, your environment, and what you eat. Here are some things that may lower your risk of getting gout:

- Don't drink too much alcohol.
- Don't eat many foods that are high in purines.
- Lose weight, if you are overweight.

## Disease Course

Gout is one of the most controllable forms of arthritis. Treatment and dietary changes can help many people avoid frequent gout attacks and reduce their severity. You may have an acute

attack followed by months or even years without any symptoms.

Proper treatment can also help you avoid a condition called chronic tophaceous gout, which can develop over 10 years or so and cause permanent damage to your joints and kidneys. Talk to your doctor about how best to manage your condition.

## Research Progress

NIAMS continues to support research on treatments for gout, including:

- Determining which medications and dosages are the most effective.
- Researching potential new therapies.
- Studying which foods improve or worsen gout symptoms.
- Studying which cells are involved in gout attacks.
- Researching how genetics and environmental factors can lead to gout.

## Related Resources

### **U.S. Food and Drug Administration**

Toll free: 888-INFO-FDA (888-463-6332)

Website: <https://www.fda.gov>

Drugs@FDA at <https://www.accessdata.fda.gov/scripts/cder/daf>. Drugs@FDA is a searchable catalog of FDA-approved drug products.

### **Centers for Disease Control and Prevention, National Center for Health Statistics**

Website: <https://www.cdc.gov/nchs>

### **American College of Rheumatology**

Website: <https://www.rheumatology.org>

### **Arthritis Foundation**

Website: <https://www.arthritis.org>

If you need more information about available resources in your language or other languages, please visit our webpages below or contact the NIAMS Information Clearinghouse at [NIAMSInfo@mail.nih.gov](mailto:NIAMSInfo@mail.nih.gov).

- [Asian Language Health Information](#)
- [Spanish Language Health Information](#)

## **Join a Clinical Trial**

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## **Related Information**

[Cómo vivir con artritis: Información básica de salud para usted y su familia](#)  
[Healthy Joints Matter: Kids' Fact Sheet](#)

## **View/Download/Order Publications**

[Gout, Easy-to-Read Fast Facts](#)  
[Gout, Questions and Answers about](#)  
[Arthritis, Living With: Health Information Basics for You and Your Family](#)